

**[0043] CLAIMS**

1. A remote control system for transmitting commands to an IR remote controllable device comprising:

a first control device for transmitting a first IR control signal;

5 a second control device for receiving the first IR control signal and transmitting an RF signal corresponding to the first IR control signal; and

a third control device for receiving the RF signal and transmitting a second IR control signal corresponding to the RF signal, the second IR control signal being receivable by the IR remote controllable device;

10 the RF signal being amplitude shift keying modulated.

2. A remote control system for transmitting commands to an IR remote controllable device comprising:

15 a first control device for transmitting a first IR control signal without an IR carrier;

a second control device for receiving the first IR control signal and transmitting an RF signal corresponding to the first IR control signal; and

20 a third control device for receiving the RF signal and transmitting a second IR control signal corresponding to the RF signal, the second IR control signal being receivable by the IR remote controllable device for controlling the controllable device;

the first control device transmitting within the first IR control signal data identifying an IR carrier frequency, said data being included in the RF signal received by the third control device and used by the third control device to configure the second IR control signal to be at the identified IR carrier frequency.

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3. A remote control system for transmitting commands to an IR remote controllable device comprising:

a first control device for transmitting a first IR control signal including an IR carrier frequency;

30 a second control device for receiving the first IR control signal and transmitting an RF signal corresponding to the first IR control signal; and

a third control device for receiving the RF signal and transmitting a second IR control signal corresponding to the RF signal, the second IR control signal being receivable by the IR remote controllable device for controlling the controllable device,

the second control device transmitting within the RF signal data identifying the IR carrier frequency but not transmitting the IR carrier, said information being used by the third control device to configure the second IR control signal to be at the identified IR carrier frequency,

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4. A remote control system for transmitting commands to an IR remote controllable device comprising:

a first control device for transmitting a first IR control signal without an IR carrier;

10 a second control device for receiving the first IR control signal and transmitting an RF signal corresponding to the first IR control signal; and

a third control device for receiving the RF signal and transmitting a second IR control signal corresponding to the RF signal, the second IR control signal being receivable by the IR remote controllable device for controlling the controllable device;

15 the first control device transmitting within the first IR control signal data identifying an IR carrier frequency, said data being included in the RF signal received by the third control device and used by the third control device to configure the second IR control signal to be at the identified IR carrier frequency;

the RF signal being amplitude shift keying modulated.

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5. A remote control system for transmitting commands to an IR remote controllable device comprising:

a first control device for transmitting a first IR control signal including an IR carrier frequency;

25 a second control device for receiving the first IR control signal and transmitting an RF signal corresponding to the first IR control signal; and

a third control device for receiving the RF signal and transmitting a second IR control signal corresponding to the RF signal, the second IR control signal being receivable by the IR remote controllable device for controlling the controllable device,

30 the second control device transmitting within the RF signal data identifying the IR carrier frequency but not transmitting the IR carrier, said data being used by the third control device to configure the second IR control signal to be at the identified IR carrier frequency;

the RF signal being amplitude shift keying modulated.

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6. The remote control system of claims 1-5 wherein the first control device and the second control device are locatable in an enclosure different from the third control device and the controllable device.

5 7. The remote control system of claims 1-6 wherein there are a plurality of third control devices and respective controllable devices, each third control device being responsive a single second control device.

8. The remote control system of claims 1-7 wherein the first control device and  
10 the second control device are disposed together within a common housing.

9. The remote control system of claims 1, 4 or 5 wherein a version of the first IR control signal modulates the power supply of an RF output transmitter stage of the second control device.

10. The remote control system of claim 9 wherein the peak signal output capability from the first control device 100 percent modulates the RF transmitter.

11. The remote control system of claim 9 wherein less than peak signal output  
20 capability from the first control device 100 percent modulates the RF transmitter.

12. The remote control system of claim 11 wherein the RF transmitter is overmodulated and has a duty cycle "on" time which is shorter than an "off" time.

25 13. The remote control system of claims 2, 3, 4 or 5 wherein the data designating the IR carrier frequency is at least four bits long.

14. A remote control system for transmitting commands to an IR remote controllable device comprising:

30 a first control device for transmitting an RF signal, and

a second control device for receiving the RF signal and transmitting an IR control signal corresponding to the RF signal, the IR control signal being receivable by the IR remote controllable device;

the RF signal being amplitude shift keying modulated.

15. A remote control system for transmitting commands to an IR remote controllable device comprising:

a first control device for transmitting an RF signal, and

a second control device for receiving the RF signal and transmitting an IR control signal corresponding to the RF signal, the IR control signal being receivable by the IR remote controllable device for controlling the controllable device;

the first control device transmitting within the RF signal identifying an IR carrier frequency, said data being used by the second control device to configure the IR control signal to be at the identified IR carrier frequency.

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16. A remote control system for transmitting commands to an IR remote controllable device comprising:

a first control device for transmitting an RF signal, and

a second control device for receiving the RF signal and transmitting an IR control signal corresponding to the RF signal, the IR control signal being receivable by the IR remote controllable device for controlling the controllable device;

the first control device transmitting within the RF signal identifying an IR carrier frequency, said data being used by the second control device to configure the IR control signal to be at the identified IR carrier frequency,

the RF signal being amplitude shift keying modulated.

17. A remote control system for transmitting commands to an IR remote controllable device comprising:

a first control device for receiving a first IR control signal and transmitting an RF signal corresponding to the first IR control signal; and

a second control device for receiving the RF signal and transmitting a second IR control signal corresponding to the RF signal, the second IR control signal being receivable by the IR remote controllable device;

the RF signal being amplitude shift keying modulated.

18. A remote control system for transmitting commands to an IR remote controllable device comprising:

a first control device for receiving a first IR control signal and transmitting an RF signal corresponding to the first IR control signal; and

a second control device for receiving the RF signal and transmitting a second IR control signal corresponding to the RF signal, the second IR control signal being receivable by the IR remote controllable device for controlling the controllable device,

the first control device transmitting within the RF signal data identifying the IR carrier frequency but not transmitting the IR carrier, said data being used by the third control device to configure the second IR control signal to be at the identified IR carrier frequency;

5 the RF signal being amplitude shift keying modulated.

the first control device transmitting within the RF signal data identifying the IR carrier frequency but not transmitting the IR carrier, said data being used by the third control device to configure the second IR control signal to be at the identified IR carrier frequency;